Page 42, line 31, change "inventioin" to --invention--.

In the Claims:

Claim 18, line 3, change "deconvoulting" to --deconvoluting--.

Please rewrite claims 1 and 4 as follows:

1. (Amended) A method of speciated isotope dilution measurement of a sample comprising

providing at least one predetermined stable isotope,

preparing a different [an] isotopic spike for each species to be measured by converting each said stable isotope to a speciated enriched isotope corresponding to the species to be measured in said sample,

spiking the sample containing said [specie] species to be measured,

equilibrating said isotopic spiked species with said species to be measured,

separating at least a portion of said species from said sample,

making isotope ratio determinations for each said specie to be measured and mathematically deconvoluting said species concentration while correcting for species conversion, and

effecting said mathematical deconvolution while correcting for incomplete separation of said species from said sample.

4. (Amended) The method of speciated isotope dilution measurement of claim 2 including

effecting said mathematical deconvolution employing the following formulas:

$$R^{III}_{50/52} = \frac{({}^{50}A_x C_x^{III} W_x + {}^{50}A_s^{III} C_s^{III} W_s^{III})(1-\alpha) + ({}^{50}A_x C_x^{VI} W_x + {}^{50}A_s^{VI} C_s^{VI} W_s^{VI})\beta}{({}^{52}A_x C_x^{III} W_x + {}^{52}A_s^{III} C_s^{III} W_s^{III})(1-\alpha) + ({}^{52}A_x C_x^{VI} W_x + {}^{52}A_s^{VI} C_s^{VI} W_s^{VI})\beta}$$

$$R^{III}_{53/52} = \frac{({}^{53}A_x C_x^{III} W_x + {}^{53}A_s^{III} C_s^{III} W_s^{III})(1-\alpha) + ({}^{53}A_x C_x^{VI} W_x + {}^{53}A_s^{VI} C_s^{VI} W_s^{VI})\beta}{({}^{52}A_x C_x^{III} W_x + {}^{52}A_s^{III} C_s^{III} W_s^{III})(1-\alpha) + ({}^{52}A_x C_x^{VI} W_x + {}^{52}A_s^{VI} C_s^{VI} W_s^{VI})\beta}$$

$$R^{VI}_{50/52} = \frac{({}^{50}A_x C_x^{III} W_x + {}^{50}A_s^{III} C_s^{III} W_s^{III})\alpha + ({}^{50}A_x C_x^{VI} W_x + {}^{50}A_s^{VI} C_s^{VI} W_s^{III})(1-\beta)}{({}^{52}A_x C_x^{III} W_x + {}^{52}A_s^{III} C_s^{III} W_s^{III})\alpha + ({}^{52}A_x C_x^{VI} W_x + {}^{52}A_s^{VI} C_s^{VI} W_s^{VI})(1-\beta)}$$

$$R^{VI}_{53/52} = \frac{({}^{53}A_x C_x^{III} W_x + {}^{53}A_s^{III} C_s^{III} W_s^{III})\alpha + ({}^{53}A_x C_x^{VI} W_x + {}^{53}A_s^{VI} C_s^{VI} W_s^{III})(1-\beta)}{({}^{52}A_x C_x^{III} W_x + {}^{52}A_s^{III} C_s^{III} W_s^{III})\alpha + ({}^{52}A_x C_x^{VI} W_x + {}^{52}A_s^{VI} C_s^{VI} W_s^{VI})(1-\beta)}$$